

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An immunogenic construct comprising amino acid sequences selected from a viral transmembrane envelope protein of one virus which is associated with the viral membrane via at least one transmembrane region and comprises at least one fusion domain and at least two α -helical structures,
~~characterized in that~~ wherein
the amino acid sequences are selected from
 - (i) a first region of the envelope protein, located between the transmembrane region and a first α -helical structure, and
 - (ii) a second region located between the fusion domain and a second α -helical structure,
wherein the amino acid sequences of the first and the second region are linked or associated via a chemical crosslinker, a heterobifunctional crosslinker or a portion of a transmembrane envelope protein of another virus,
and/orthat the construct comprises the DNA encoding the respective amino acid sequences.
2. (Currently Amended) The immunogenic construct according to claim 1,
~~characterized in that~~ wherein
the selected amino acid sequences are a synthetic peptide, a recombinant protein, a sequence for the respective amino acid sequence encoded by an appropriate DNA and/or a combination thereof.
3. (Currently Amended) The immunogenic construct according to claim 1 ~~or 2~~,
~~characterized in that~~ wherein
the first α -helical structure is a C-terminal helix and the second α -helical structure is a

N-terminal helix of the envelope protein.

4. (Currently Amended) The immunogenic construct according to ~~any of claims 1 to 3,~~
claim 1
~~characterized in that wherein~~
the envelope protein is a protein of a virus selected from the group of HIV-1, HIV-2, FeLV, BIV, CEAV, EIAV1, FIV, OMVV, SIVmac, SIVcpz, VILV, HIV-1, HIV-2, RSV, ALV, JSRV, SRV, GALV, MLV, MuLV, FeLV, BLV, HTLV-1, HTLV-2, KoRV, SARS virus, SMRV, Marburg virus, Ebola, influenza virus, measles virus, mumps virus, Visna virus, PERV and/or HPV-1.
5. (Currently Amended) The immunogenic construct according to ~~any of claims 1 to 4,~~
claim 1
~~characterized in that wherein~~
the envelope protein is at least one of gp41, p15E, GP2, gp20, gp21, gp30, gp36, gp37, gp40, gp41, gp45, gp160, p15E, E2, HA2 and/or F2.
6. (Currently Amended) The immunogenic construct according to ~~any of claims 1 to 5,~~
claim 1
~~characterized in that wherein~~
said at least two amino acid sequences are selected from the group of N-terminal and C-terminal sequences comprising at least one sequence of Nos. 1 to 104 ~~and/or~~ the DNA encoding same.
7. (Currently Amended) The immunogenic construct according to ~~any of claims 1 to 6,~~
claim 1
~~characterized in that wherein~~
the amino acid sequences ~~and/or~~ the DNA encoding same are linked to or associated with each other: via the portion of the transmembrane envelope protein of the other virus or the DNA thereof.

8. (Currently Amended) The immunogenic construct according to ~~any of claims 1 to 7~~
claim 1,
~~characterized in that wherein~~
the amino acid sequences and/or the DNA encoding same are associated with a
liposomes, ~~particularly entrapped in and/or anchored on a liposomal membrane.~~
9. (Currently Amended) A pharmaceutical agent comprising at least one of the
immunogenic constructs according to ~~any of claims 1 to 8, optionally together with~~
~~pharmaceutically tolerable adjuvants~~ claim 1.
10. (Original) The pharmaceutical agent according to claim 9 for use as
immunotherapeutic or immunoprophylactic agent.
11. (Cancel)
12. (Cancel)
13. (Currently Amended) The pharmaceutical agent according to ~~any of claims 9 to 12~~
claim 9,
~~characterized in that wherein~~
at least one amino acid sequence is linked to a carrier system.
14. (Currently Amended) The pharmaceutical agent according to ~~any of claims 9 to 13~~
claim 38,
~~characterized in that wherein~~
the adjuvants or the carrier system are constituted of one or more protein fragments
linked via a peptide bond to the outer N- or C-terminal end of said amino acid
sequence.
15. (Currently Amended) The pharmaceutical agent according to ~~any of claims 9 to 14~~
claim 38,

- ~~characterized in that wherein~~
the adjuvants or the carrier system are selected from the group comprising albumins, KLH and/or dextrans.
16. (Currently Amended) The pharmaceutical agent according to ~~any of claims 9 to 15~~
claim 9,
~~characterized in that~~
it additionally ~~comprises~~ comprising at least one non-specific immune adjuvant.
17. (Currently Amended) An amino acid sequence selected from the group comprising a sequence of SEQ ID Nos. 1 to 104 ~~and/or~~ a DNA encoding same for use in medicine.
18. (Currently Amended) ~~A N~~neutralizing antibodies antibody produced by immunization using the immunogenic construct according to ~~any of claims 1 to 8~~ claim 1.
19. (Cancel)
20. (Cancel)
21. (Currently Amended) A method for inducing an antibody response in a mammal,
~~characterized in that comprising the step of~~
contacting the immunogenic construct according to ~~any of claims 1 to 8~~ claim 1 ~~and/or~~
~~the pharmaceutical agent according to any of claims 9 to 16~~ claim 9 ~~are contacted with~~
an organism.
22. (Currently Amended) The method according to claim 21,
~~characterized in that wherein~~
said contacting is effected on at least one route being selected from an oral, anal, rectal, vaginal, intravenous, intradermal, subcutaneous and/or intramuscular route.
23. (Cancel)

24. (Cancel)
25. (Currently Amended) A method for at least one of diagnosis, prophylaxis, therapy and follow-up of a viral disease comprising the step of administering Use of the immunogenic construct according to any of claims 1 to 8 claim 1, the pharmaceutical agent according to any of claims 9 to 16, at least one amino acid sequence according to claim 17 and/or the or a corresponding neutralizing antibody according to claim 18 in the diagnosis, prophylaxis, therapy and/or follow-up of viral diseases, particularly retroviral diseases to an organism.
26. (Cancel)
27. (Cancel)
28. (Cancel)
29. (Currently Amended) A method for the production of an antibody against a retroviral disease,
~~characterized in that comprising the steps of~~
contacting an organism is contacted with the immunogenic construct according to any of claims 1 to 8 claim 1, the pharmaceutical agent according to any of claims 9 to 16, at least one amino acid sequence according to claim 17 and/or the neutralizing antibody according to claim 18; thereby inducing an humeral immune response via formation of antibodies, and the antibodies are obtaining subsequently obtained the antibody from the organism.
30. (Currently Amended) A method for the passive immunization of an organism,
~~characterized in that comprising the steps of~~
contacting an organism with the antibodies antibody obtained according to the method of claim 29 are contacted with an organism.

31. (Currently Amended) An immunoassay for the detection of at least one of a HIV-1, HIV-2, FeLV, BIV, CEAV, EIAV1, FIV, OMVV, SIVmac, SIVcpz, VILV, ~~HIV-1, HIV-2~~, RSV, ALV, JSRV, SRV, GALV, MLV, MuLV, FeLV, BLV, HTLV-1, HTLV-2, KoRV, SARS virus, SMRV, Marburg virus, Ebola, influenza virus, measles virus, mumps virus, Visna virus, PERV and/or HPV-1 ~~antibodies~~ antibody in a biological sample, comprising
- coating a solid phase with the immunogenic construct according to ~~any of claims 1 to 8~~ claim 1,
 - incubating the solid phase with the biological sample,
 - incubating the solid phase with an anti-human antibody capable of detecting the classes IgA, IgM, IgG, which antibody is labelled with a detectable label, and
 - detecting the label in order to determine the presence of the binding ~~antibodies~~ antibody against the above-mentioned viruses in the sample.
32. (Currently Amended) An immunoassay for the detection of a viral antigens in a biological sample, comprising
- coating a solid phase with the neutralizing antibody ~~according to claim 18~~ produced by immunization with the construct of claim 1,
 - incubating the solid phase with the biological sample,
 - incubating the solid phase with a second antibody against the viral antigens to be found, said antibody being different from the first one and obtained from an animal or human following immunization with the immunogenic construct according to ~~any of claims 1 to 8~~ claim 1, and
 - detecting the coupled second antibody so as to determine the amount of bound antigen.
33. (New) The immunogenic construct according to claim 1,
wherein
the envelope protein of the one virus is an envelope protein of a lentivirus.

34. (New) The immunogenic construct according to claim 33,
wherein
the envelope protein is gp41 from HIV-1.
35. (New) The immunogenic construct according to claim 1,
wherein
the envelope protein of the one virus or the other virus is an envelope protein of a gammaretrovirus.
36. (New) The immunogenic construct according to claim 35,
wherein
the envelope protein is p15E from FeLV.
37. (New) The immunogenic construct according to claim 8,
wherein
the amino acid sequences or the DNA encoding same are entrapped in or anchored on
a liposomal membrane.
38. (New) The pharmaceutical agent according to claim 9
additionally comprising pharmaceutically tolerable adjuvants.
39. (New) The pharmaceutical agent according to claim 10 for the prophylactic or
therapeutic treatment of an HIV infection.
40. (New) The pharmaceutical agent according to claim 13,
wherein
the carrier system is constituted of one or more protein fragments linked via a peptide
bond to the outer N- or C-terminal end of said amino acid sequence.
41. (New) The pharmaceutical agent according to claim 13,
wherein

the carrier system is selected from the group comprising albumins, KLH and dextrans.

42. (New) The method according to claim 25,
wherein the viral disease is a retroviral disease.